

The Roots Ramble

Natural Roots CSA Newsletter



A bumblebee on one of our sunflowers here at Natural Roots



Another collection site in the Pioneer Valley.

Bee Collection at Natural Roots

Last week we shared a bit about our ornithologist friends from UMass and their study involving birds on our farm. This week we'd like to introduce you to Alison Fowler, a PhD Candidate in the Department of Biology at UMass Amherst, who is collecting bees at different area farms to understand how the landscape affects their health, and has chosen Natural Roots as one of her collection sites. She studies bee health by looking at the bacteria that live in the bee's gut. Gut microbes play a big role in our health; they help us digest food and certain bacteria are correlated with certain diseases. Bees also have gut microbes that affect their health, but much more research is needed to fully understand these links. We have lots of amazing wild bee species here in New England, and we know that many suffer from diseases. In order to better understand and protect our wild populations, Alison is studying bee gut microbes in the Adler Lab at UMass, which has recently discovered that when bees eat pollen from sunflowers, they have fewer gut parasites.

She is curious to see if this link between food and disease is driven by changes in their gut microbes, and is hoping to visit farms in the Pioneer Valley that differ in their amount of sunflowers planted to see if bees foraging in a landscape with lots of sunflowers (and not much else) have different gut microbes than bees in landscapes with a variety of flowering species, including some sunflowers, or a landscape with no sunflowers. Natural Roots has many flowering crops, including our lovely row of you-pick sunflowers, so our farm will serve as a site in the middle category.

Alison hopes to collect individuals of three different types of bees: bumble bees, sweat

bees, and leafcutter bees. By looking at different species, she hopes to see if any patterns are general or species-specific. We are so excited to be a part of and to support this important study on bee health, and are looking forward to sharing her findings!

